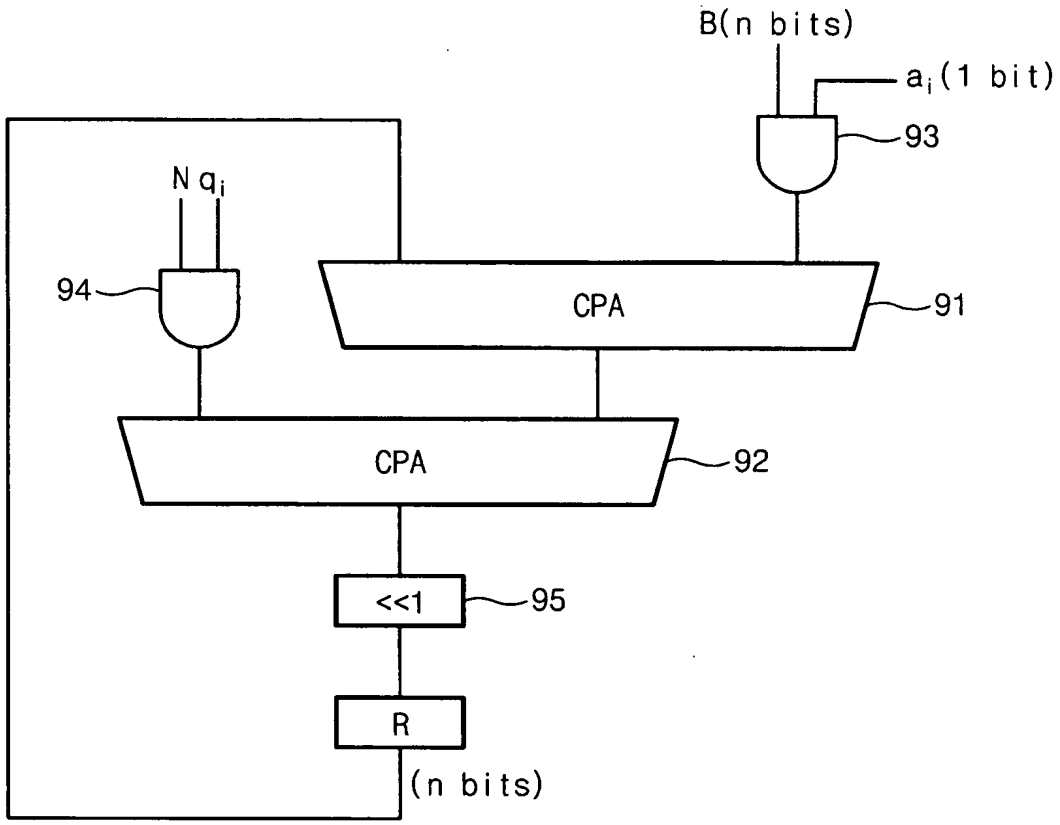
Fig. 1

(Background Art)



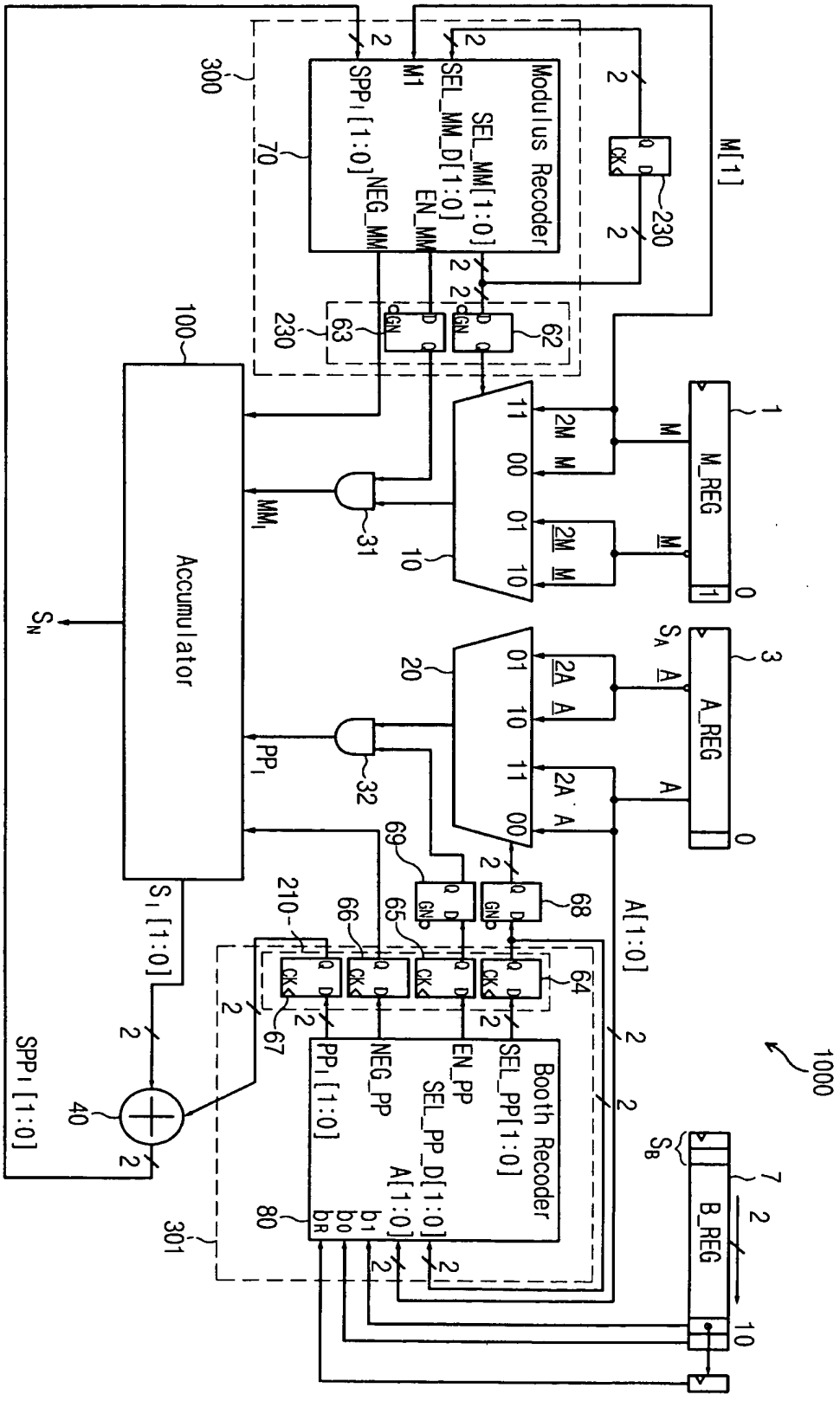

M[1]
M_REG
A_REG
B_REG
Modulus Recoder
Booth Recoder
Accumulator
SEL_MM[1:0]
SEL_MM_D[1:0]
EN_MM
NEG_MM
SPP_I[1:0]
MM_I
PP_I
S_I[1:0]
S_N
S_A
S_B
A[1:0]
SEL_PP[1:0]
SEL_PP_D[1:0]
EN_PP
NEG_PP
PP_I[1:0]
1000
300
301
100
70
80
63
62
64
67
68
69
65
66
210
230
31
32
10
20
40

Fig. 2

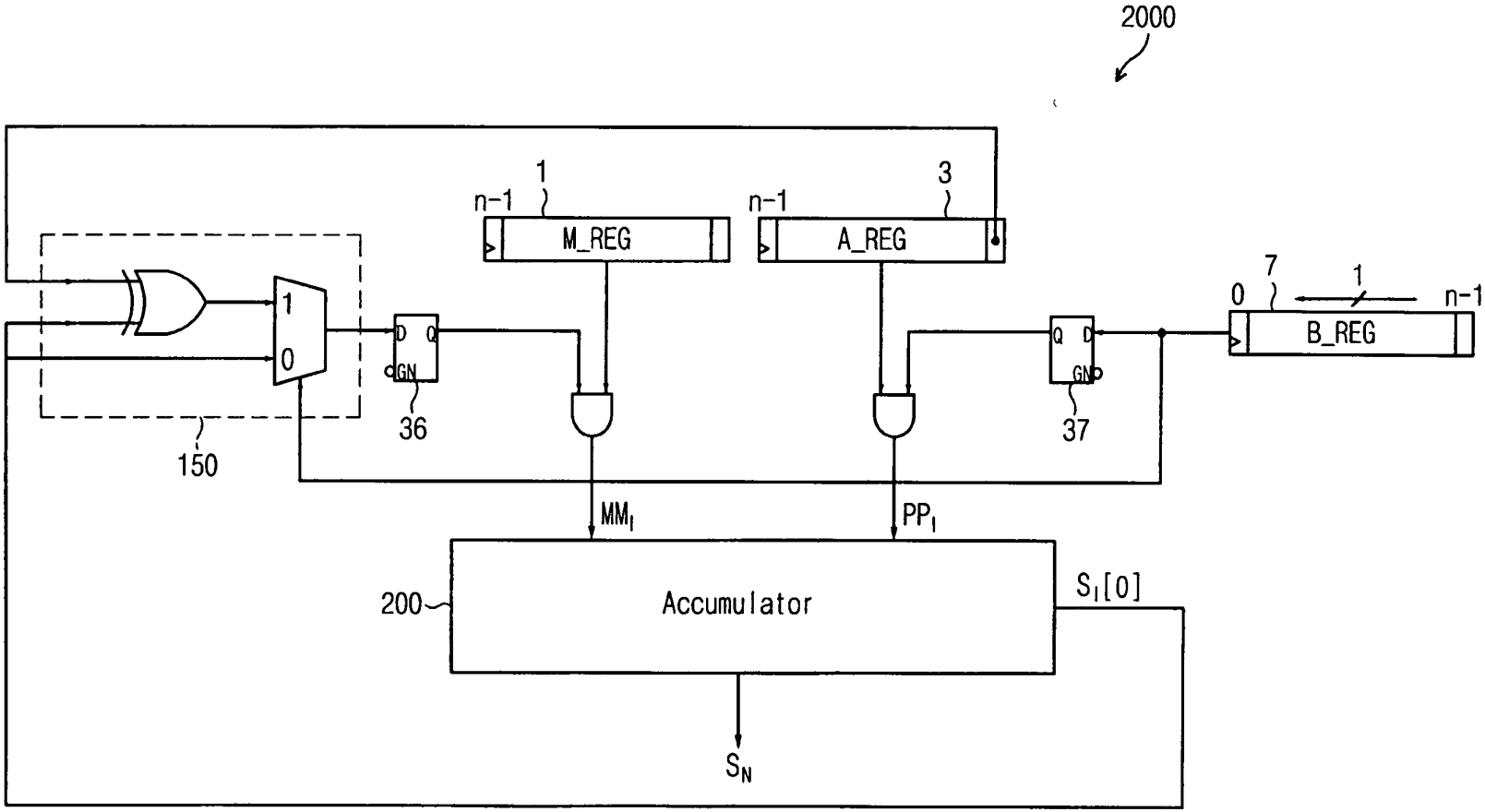
Fig. 3

Inputs of MR(220)			Selected MM_I	Outputs of MR(70)		
M[1]	SPP_I[0]	SPP_I[0]		SEL_MM[1:0]	EN_MM	NEG_MM
0	0	0	0	SEL_MM_D[1:0]	0	0
0	0	1	-M	10	1	1
0	1	0	2M	11	1	0
0	1	1	M	00	1	0
1	0	0	0	SEL_MM_D[1:0]	0	0
1	0	1	M	00	1	0
1	1	0	2M	11	1	0
1	1	1	-M	10	1	1

Fig. 4

Inputs of BR(80)			Selected PP_I	Outputs of BR(80)			
b_I	b_0	b_R		SEL_PP[1:0]	EN_PP	NEG_PP	$PP_I[1],PP_I[0]$
0	0	0	0	SEL_PP_D[1:0]	0	0	0,0
0	0	1	A	00	1	0	A[1],A[0]
0	1	0	A	00	1	0	A[1],A[0]
0	1	1	2A	11	1	0	A[0],0
1	0	0	-2A	01	1	1	A[0],0
1	0	1	-A	10	1	1	A[1]^A[0],A[0]
1	1	0	-A	10	1	1	A[1]^A[0],A[0]
1	1	1	0	SEL_PP_D[1:0]	0	0	0,0

Fig. 5


2000
1
n-1
M_REG
3
n-1
A_REG
7
1
0
n-1
B_REG
1
0
D
Q
GN
36
Q
D
GN
37
150
MM_I
PP_I
200
Accumulator
S_I[0]
S_N